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Medicare: What is in Store for Future Generations?

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Medicare: What is in Store for Future Generations?

Senior Honors Thesis

Mathematics/Actuarial Science Department

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Abstract

Medicare is the health insurance coverage provided to all senior citizens over the age of 65. It has been around since 1965. This paper takes an in-depth look into the Medicare program. First, the history behind Social Security is introduced. The Medicare program was created as an addition to Social Security, and its history follows. Although the ideas and goals of the Medicare program have good intentions, there are many issues with it. These problems are discussed in detail in the current issues portion of the paper. As a follow up, I have expanded upon and come up with some possible solutions to some of the issues, and explained what the Medicare program entails for future generations.

History Behind Social Security

The first ideas of social security date back to the 18th and 19th centuries. In those days, threats to economic security were considered to be unemployment, illness, disability, death, and old age. Traditional sources of economic security were assets, labor, family, and charity. For those who were impoverished, there were poor laws that were created by the elders in colonial America. It was at the elders' discretion as to who was eligible for public assistance. Local taxation contributed to the relief fund. Although relief was being provided in places such as almshouses or poorhouses, it was given in as unpleasant ways as possible to discourage dependency. After the Civil War, this need-based assistance became more prevalent and commonplace. In 1862, a Civil War pension program was developed, providing widows and children of deceased soldiers with pensions equal to what the soldier would have been paid if he were disabled.

The social security act was signed into law by President Franklin D. Roosevelt on August 14, 1935. At the time, social security was intended to create a social insurance program designed to pay retired workers age 65 or older a continued income after retirement. Life expectancy at birth in the 1930s was 58 for men and 62 for women, and the retirement age was 65. However, the life expectancy for a male aged 65 in 1940 was about 12.7 years, and for females about 14.7 years.

When social security was signed into law, there were two major provisions: Title I and Title II. Title I provided states with grants for Old-Age Assistance, which were supported state welfare programs for the aged. Title II consists of federal Old-Age Benefits. Originally, these benefits were to be paid only to the primary worker when he or she retired at age 65. Benefits were to be based on payroll tax contributions that the worker made during his or her working life.

The first taxes were collected in 1937, with monthly benefits beginning in 1940. Title I served as a temporary relief program that eventually disappeared as more people obtained retirement income through the contributory system. Therefore, Title II became the main focus of future legislations of social security.

History Behind Medicare

When Roosevelt signed the original Social Security Act into law, a major provision was left out: health insurance. The idea of health insurance originated in 1902 from the first workmen's compensation law. Although the law for the coal miners' compensation was eventually declared unconstitutional, a series of legislatures came about that dealt with workers' compensation. From the 1930s onward, medical care was accepted as one of the basic necessities of life which, as a last resort, society itself must provide. While health care was considered a necessity, at the time, only about 56% of Americans had hospital insurance¹. The idea for a national health plan was not widely publicized until it was pushed by President Harry S Truman. In 1945, he proposed that Congress expand the Social Security system for the creation of a national health insurance fund that would be open to all Americans, but would remain optional.

Participants would pay monthly fees into the plan, which would cover the cost of any and all medical expenses that arose in a time of need. The government would pay for the cost of services rendered by any doctor who chose to join the program. In addition, the insurance plan would give a cash balance to the policy holder to replace wages lost due to illness or injury. (Harry S Truman Library & Museum)

¹ <http://www.medicareresources.org/basic-medicare-information/brief-history-of-medicare/>

At the time, this idea of creating a medical insurance program that was accessible to everyone was uncommon. The American Medical Association (AMA) was the main source of opposition to this new idea. The AMA attacked the bill, deeming it “social medicine,” and claiming that it was related to what the public had feared at the time: Communism.

It was not until the late 1950s that there was growing recognition of the need for federal action to help meet the high cost of health care for the nation’s elderly. The process of forming what is known today as Medicare was a constant political struggle. There were many different views about how to approach this situation. They ranged from: building on the existing Social Security program to voluntary participation of beneficiaries (in contrast to the social insurance approach). Another proposal was to grant government assistance only after the individual went through a selection process and was deemed to be in financial need.

The Medicare and Medicaid Programs were finally signed into law as an amendment to the Social Security Act by President Lyndon B. Johnson on July 30, 1965.

In a speech at the bill signing ceremony, President Johnson said, "Through this new law...every citizen will be able, in his productive years when he is earning, to insure himself against the ravages of illness in his old age. This insurance will help pay for care in hospitals, in skilled nursing homes, or in the home. And under a separate plan, it will help meet the fees of the doctors." (PBS: The Medicare System)

The original provisions were as follows: during working years, each individual must pay \$2.50 per month. This would be included in the portion contributed by the employer. Then for \$3 per month after the individual was 65 years old, he would receive full coverage of medical, surgical, and other fees whether or not he is in or out of the hospital. On December 8, 2003, President

George W. Bush signed the Medicare Modernization Act into law. This new law added an outpatient prescription drug benefit to Medicare.

There are four parts to Medicare. Original Medicare consists of two parts: Part A and Part B. Part A is hospital insurance, whereas Part B is medical insurance. The patient chooses which doctors, hospitals, or other providers he wants to use. The patient and or his supplemental coverage would pay the deductibles and coinsurance, if applicable.

The Medical Advantage Plan is known as Part C. This is a combination of parts A and B. Private insurance companies approved by Medicare are the providers of coverage. In most plans, the chosen doctors, hospitals, and other providers must be those from the specific plan in order to have the costs covered. Otherwise, the patient would pay more or all of the medical costs. There is usually a monthly premium in addition to the Part B premium, and a copayment or coinsurance for covered services. The specific costs, extra coverage, and rules vary by plan.

The fourth part, Part D, is prescription drug coverage. Through original Medicare, if a patient wants this coverage, he must choose and join a Medicare Prescription Drug Plan run by certain private companies approved by Medicare. Through Part C, if prescription drug coverage is desired and is not offered by the plan, the patient can choose and join a Medicare Prescription Drug Plan. Otherwise if it is included, then that patient obtains prescription coverage through their Part C plan.

Medicare Today

Today, Medicare is managed by the Health Care Financing Administration (HCFA), a division of the U.S. Department of Health and Human Services. It generally retains most of the same provisions that were in the original program. A major difference is that Medicare Part B (known as Supplemental Medical Insurance) now consists of both Parts B and D. Part B helps pay for physician, outpatient hospital, home health, and other services for the aged and the disabled who have voluntarily enrolled. Part D provides subsidized access to drug coverage on a voluntary basis for all beneficiaries. It also offers premium- and cost-sharing subsidies for low-income enrollees.

There is an alternative to the more traditional Part A and Part B coverage. It is essentially equivalent to Part C of original Medicare. The patient can choose to enroll in and receive care from “medical Advantage” and certain other health insurance plans that contrast with Medicare. This type of coverage is generally more ideal for those who desire more control over their own coverage. However, for the purposes of this paper, the focus will be on the traditional portion of the Medicare program.

The two parts to traditional Medicare, Parts A and B, differ greatly in the way in which they are funded. Part A is financed by the Hospital Insurance (HI) Fund, a trust fund. The federal government collects a payroll tax of approximately 1.45% in order to fund Medicare². The payroll tax finances the majority of the HI Fund.

² PBS: The Medicare System; <http://www.pbs.org/newshour/health/medicare/financing.html>

Part B, which covers such payments as doctors' appointments, is funded by a different trust fund, the Supplementary Medical Insurance (SMI) Fund. Those who are enrolled in Part B pay premiums, which, along with the general budget, supplies the SMI Fund.

The SMI Funds' premiums and tax revenues are re-evaluated and financially reset on an annual basis to cover the cost of Part B benefits. As a result, the SMI Fund cannot be overdrawn. The payments to the HI Fund, on the other hand, are dependent upon the number of workers paying into the system. These payments are not readjusted every year; therefore, this fund can become insolvent. The HI Fund trustees meet annually to discuss and predict the fund's solvency. It is the HI Fund that is the basis used to determine the well-being of the Medicare program. The SMI Fund is not at risk of insolvency, since it can be covered through increases in annual premiums and tax revenues.

Patient Protection and Affordable Care Act

On March 23, 2010, President Barack Obama signed the Patient Protection and Affordable Care Act. The Affordable Care Act is centered on the notion of improving quality and lowering costs of health insurance. It aims to make health care more easily accessible and affordable for more people. Under this law, there have been new consumer protections such as: prohibiting insurance companies from rescinding insurance coverage, putting information for consumers online, prohibiting denying of coverage of children under 19 based on pre-existing conditions, and the ability to appeal insurance company decisions. The Affordable Care Act contains provisions that affect Medicare. It has implications for beneficiaries as well as the program as a whole. The Affordable Care Act aims to strengthen Medicare and provide stronger benefits to seniors, while slowing the enrollees' cost growth. It is estimated that over the next 10

years, average Medicare beneficiary savings in traditional Medicare will be approximately \$3,500. Those who have high prescription drug spending will save as much as \$12,300 over the next 10 years, as opposed to those with low prescription drug spending - they will save approximately \$2,400 over the next 10 years³.

The Affordable Care Act is expected to favorably affect beneficiary expenditures in four ways. First, premiums for Part B physician and other services are expected to increase at a slower rate than would have occurred without the Affordable Care Act. This would result in lower Part B premiums over time. Second, beneficiary copayments and coinsurance under parts A and B will increase at a slower rate, because the Affordable Care Act slows the rate of growth in payments to hospitals and other providers. Third, the Affordable Care Act aims to close the Medicare prescription drug gap ("donut hole") by lowering costs for beneficiaries who would otherwise have been required to spend thousands of dollars out of their own pocket for their prescription drugs. Finally, the Affordable Care Act will provide many preventive services to seniors at no additional cost.

Although this legislation claims to implement many important changes to the Medicare program, many important issues still remain unsolved. The primary issue is funding. The Affordable Care Act did not explicitly state where there would be costs savings to Medicare beneficiaries. It also did not state how it would be possible to slow down the Medicare costs for beneficiaries. The Affordable Care Act speaks of many ideal solutions to the Medicare costs and access for senior citizens, but it does not mention how it will go about implementing these changes.

³ <http://www.healthcare.gov/law/resources/reports/affordablecareact.html>

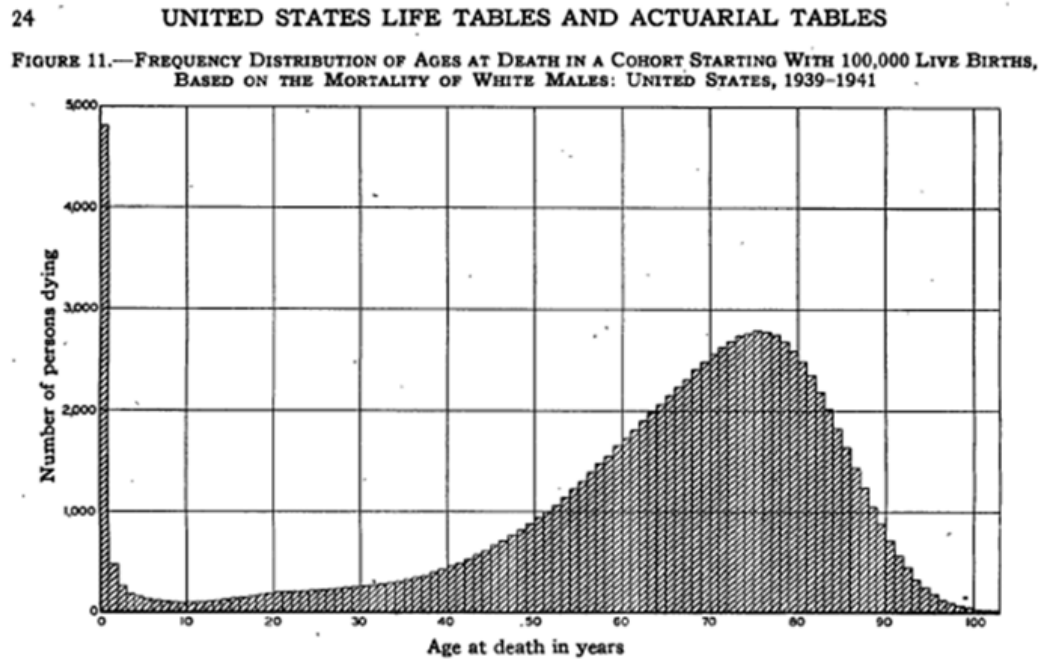
Current Issues

There are two main issues concerning the Medicare program: the worker-to-beneficiary ratio and rising costs. Because the HI Fund relies on current workers' payroll tax in order to maintain future solvency, the ratio of those employed to those retiring is crucial. Since the HI Fund is based on a contributory system, and the number of workers per beneficiary is decreasing, major funding challenges arise. In 2009, there were about 3.7 workers for every person receiving Medicare benefits. In 2010, the baby-boomer generation began retiring. Around that time, there were already approximately 37 million Americans aged 65 and older in the Medicare system. The trustees predict a 30 percent increase in the number of Medicare beneficiaries in the coming decade, to 58.8 million in 2018⁴. Because of the influx of beneficiaries, the HI Fund trustees predict that the worker per beneficiary ratio will decrease to 2.4 workers per retiree by 2030, and even lower to 2 per retiree in 2075. The burden per worker will only continue to increase as the number of retirees increases and as there are fewer workers per beneficiary to support the increase.

⁴ <http://topics.nytimes.com/top/news/health/diseasesconditionsandhealthtopics/medicare/index.html>

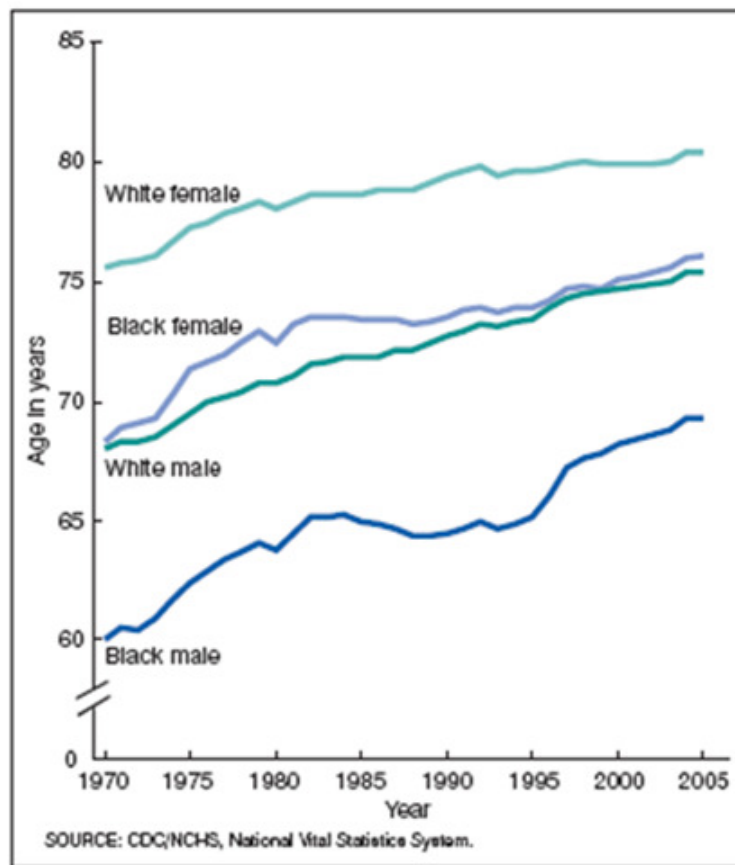
Figure 1. Age at death (1939-1941), in comparison to life expectancy (1970-2005)

Figure 1a. Age at death in a cohort starting with 100,000 live births, based on mortality of white males: U.S., 1939-1941⁵



⁵ http://www.cdc.gov/nchs/data/lifetables/life39-41_actuarial.pdf

Figure 1b. Life expectancy at birth, by race and sex: U.S. 1970-2005⁶



Another challenge to Medicare’s financial future is rising costs. This is due in part to the aging population. As shown in Figure 1, the life expectancy is steadily increasing, especially with better technology and healthcare. With the constant increase in longevity, yet another challenge contributing to Medicare’s financial situation is presented. In addition to those that are just starting to retire, the financial burden is further increased by those who fall into the “oldest-old” category. Today, approximately 4.3 million people belong to this category of aged 85 and older. Again, this estimation is expected to only increase and perhaps even double by 2030.

⁶ <http://eh.net/encyclopedia/article/haines.demography>

Because the “oldest-old” generally require more expensive, long-term healthcare services, such Medicare coverage is likely to increase. Because medical technology continues to advance, better treatments will come at a greater cost, as well.

As a result of these two major challenges that Medicare funding faces, the HI trust fund will gradually become depleted. Due to the decline in the number of workers per beneficiary, coupled with the rising medical costs for people living longer, the overall burden of the program on the economy will only continue to grow. In coming years, according to Medicare trustees, spending for the program will increase faster than either workers’ earnings or the economy over all. According to the Medicare Trustees Report from 2011, the trust fund for hospital insurance is projected to be depleted by 2024.

From a beneficiary’s perspective, another major flaw of Medicare has to do with Medicare Part D. Part D requires everyone to sign up for a plan with an insurance provider in order to receive prescription drug benefits. Medicare has specific guidelines on what benefits the insurance providers are required to offer. That way, the federal government can ensure that Medicare recipients are all receiving a certain level of care and proper treatment. There are federal guidelines as to how much participants must pay (out of pocket) for their medications depending upon how much they spend each year. At first, a Medicare enrollee will pay a copayment or deductible until they have spent \$2,840. Afterwards, they must pay for all of their own medication out of pocket until a \$4,550 cap has been reached. After this quota has been spent for the year, the enrollee goes back to paying the copayment until the end of the year.

The phenomenon of the Medicare “donut hole” is the period of time spent when the Medicare enrollee must pay all medication expenses out of pocket, with no assistance from their insurance provider. The “donut hole” period ends up targeting those who need the most help in

covering their medication costs. Those are the people who either have extremely expensive medication or need to take a large number of medications.

Based on the estimated growth in Part D enrollees, the number of beneficiaries with drug spending in the donut hole is projected to grow from 3.9 million in 2009 to 5.7 million in 2020. From 2009 to 2020, total out-of-pocket spending for generic drugs is projected to grow from \$0.8 billion to \$2.2 billion. According to a report issued by the American Association of Retired Persons (AARP), the prices of drugs used most widely by older Americans rose by nearly 26 percent from 2005 to 2009 — nearly twice the rate of inflation at the time⁷. The report examined the retail prices of the 514 brand name and generic drugs that are most widely used among Medicare enrollees. The price of generic drugs fell by approximately 31% from 2005 to 2009, but the brand-name drug prices grew by nearly 41%, while specialty drugs rose more than 48%. It is getting progressively more difficult for the Medicare recipients to obtain their prescription medicine because of the donut hole as well as the additional increase in drug prices. To mitigate beneficiaries' donut hole spending, the Affordable Care Act requires drug manufacturers to provide a discount for covered brand name Part D drugs sold to seniors in the donut hole. In 2011, the change was implemented to discount Part D drugs by 50%. Later on, the covered brand name Part D drugs will be subsidized from 2.5% in 2013 to 25% in 2020. Because generic drugs tend to be much less expensive than brand name ones, the Affordable Care Act adjusts the subsidized percentages accordingly. In 2011, the subsidy for generic drugs started at 7%, and the Affordable Care Act plans to raise it to 75% in 2020.

⁷ http://www.nytimes.com/2012/03/07/business/aarp-study-says-price-of-popular-drugs-rose-26.html?_r=1&ref=medicare

Possible Solutions

I. Medicare Reimbursement Cuts. One method for saving money with Medicare is to cut reimbursements to doctors. These cuts were implemented in 1997, with a Sustained Growth Rate formula in order to control the steep Medicare cost hike.

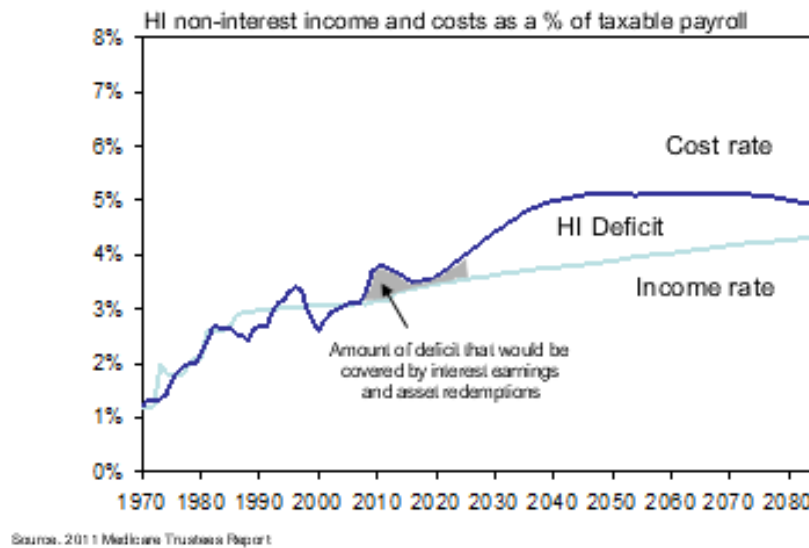
Issues with solution. If the reimbursement cuts were implemented as intended, the reductions may cause doctors to discontinue their affiliation with Medicare. If this were to happen, it would be much more difficult for senior citizens to gain access to medical care. Congress has already foreseen the consequences of drastic reimbursement cuts to doctors. Since 2002, as a somewhat retrogressive approach, Congress has implemented what is known as the “doc fix.” Congress tries to come up with money to cushion the doctors’ steep cuts from Medicare. This method mitigates the cuts on an annual basis, as opposed to an immediate, one-time reduction. Congress believed that implementing the cost cuts all at once would be too expensive. Its current method may alleviate drastic cuts, but may end up being more costly in the long run. The cost of adjusting the Sustained Growth Rate formula is estimated at \$267 billion over the next 10 years. To make up for this, Congress would have to come up with this amount through government spending cuts or increases in taxes. To amend this situation, lawmakers have agreed to implement an alternate “fix” by cutting reimbursements to hospitals, too. These reimbursement cuts would be geared toward the services that are among the most common outpatient services. The intention is to have hospitals make up for the cuts in volume of patients.

However, the reimbursement cuts would only serve to shift the burden to affect outpatient facilities as well. The facilities may have to turn away Medicare patients due to low reimbursement. It would not be financially worthwhile to continue providing services to Medicare recipients. This alternate fix would leave Medicare beneficiaries with even more

limited access to these resources; they would have to seek medical assistance elsewhere. For instance, they would have to purchase supplementary coverages (out of pocket) through private insurers. A more costly option, this would defeat Medicare's purpose to make health care more cost efficient and easily accessible for its recipients who need it the most.

II. Increase Medicare Tax on an Annual Basis. The money spent on beneficiaries' medical services may eventually exceed the amount of income in the trust fund. Every year, the costs incurred by beneficiaries are likely to increase, especially with the increase in the number of retirees. A proposed solution is to come up with a formula to increase the payroll tax for Medicare on an annual basis. The tax percentage should be correlated with a variable that is re-measured annually, such as the projected medical costs for the future year. However, a cap should also be implemented, as the rate of wage increase may not necessarily match up to the annual medical cost projections.

Figure 2: Long-term Hospital Insurance costs and income



(Source: Wildsmith, Thomas; American Academy of Actuaries)

Issues with solution. More and more of workers' earnings would be subjected to a higher tax rate. The current Medicare tax on payroll is 1.45 percent. Projections in Figure 2 show that costs could rise to 5 percent by 2035 in order to amend the HI deficit. If the HI fund is financed by increasing the payroll tax, the current earners would be subject to less disposable income. This would result in less consumption, which would consequently slow economic growth.

Additionally, if the Medicare tax is increased, it will affect not only the current workers, but their employers as well. Employers receive a tax in addition to what their employees have taken out of their payroll. If the tax increases have a significant impact on employers, they may use other means to make up for the increases. For example, to save money, employers may slow their employees' wage growth. Added to the anticipated, lowered disposable income, slowed wage increase could cause the economy to slow down even further.

III. Use Medicare Part B as a Way to Help Fund Medicare Part A. Another way to mitigate Medicare's costs would be to involve Medicare Part B. Supplementary Medical Insurance does not have the issue of its fund going insolvent, because of the annual financial reset. However, incorporating Part B adjustments to assist Medicare financing may be an appropriate solution. Current Part B premiums that beneficiaries must pay are set at 25% of costs. Since 2007, higher-income beneficiaries pay from 35% to 80% of costs. The percentage they pay is completely dependent upon beneficiaries' income. In order to increase Medicare revenues, an option is to raise Part B premiums for those who are not already subject to the higher premiums. Additionally, the Part B premiums could be raised higher for those who are already subject to the higher premiums. By increasing the premiums, the costs will be shifted to the beneficiaries, instead of affecting Medicare spending.

Issues with solution. The senior citizens are the ones who will need the benefits from Medicare. Beneficiaries are on a fixed income when retired. Therefore, they will more likely not be able to afford an increase in their premiums, not to mention a high enough increase to help with Medicare funding. Medicare is geared toward helping the senior citizens; if possible, they should not be paying more than they have to. The current Part B premiums are factored into their current finances. By increasing the Part B premiums to subsidize Part A finances, the beneficiaries will have to adjust their means of spending in order to allocate a larger percentage of their fixed income towards paying premiums. Additionally, raising the premiums would entail that seniors would have to take more out of their savings in order to make up for the higher costs. In order to make up for this, they would have to save more money. However, those currently enrolled in

Medicare, and those who will soon be enrolled have less time to increase their savings to make up for the raised premiums.

IV. Increase Medicare Eligibility Age Using a Formula. Yet another possibility is to implement a change similar to that of the Social Security eligibility age change. The eligibility age for Social Security has been raised to 67, and there is a possibility for it to increase. The eligibility age for Medicare should be changed so that it would match that of Social Security. The two programs are important for retirees, and it would be more sensible to be able to receive both at the same age. However, for Medicare, instead of just increasing the eligibility to a specific age, a formula should be developed to increase it every so many years. The life expectancy increases year by year, so the eligibility age should be raised to reflect it. However, a maximum age, or cap, should be implemented (i.e. 70 years old).

Issues with solution. If this formula for increasing the age were to be implemented, there will be the issue of those between age 65 and the new eligibility age having to find different sources of coverage. Therefore, if the eligibility change were to be in effect, it would have to be made known to future Medicare beneficiaries long beforehand. That would ensure that the future beneficiaries would have time to adjust their personal finances accordingly to make up for the difference.

Conclusion

There is not one single solution that will be able to encompass all issues contributing to Medicare's financial condition. To ensure that Medicare benefits will be available and payable in the future requires adjustments on many different levels. It is necessary to have a shared responsibility among Medicare beneficiaries, current taxpayers, and healthcare providers. To improve the long-term stability of the Medicare program requires slowing down the health care spending, rather than shifting the costs from one group to another, or placing the financial burden on a single group. When weighing advantages versus disadvantages, combinations of solutions will have the potential to control costs while improving the quality of Medicare. In order to prevent the issues from worsening, it is better to deal with them sooner rather than later.

In reference to the above possible solutions, the best resolution to the Medicare financing issues is a combination of possibilities I, II, and IV. The proposed solution III, using Part B premiums to subsidize Part A, is the least fair of all solutions. It would most likely be used as a last resort, if necessary. A combination of the other three is more logical. We should expect that there will continue to be reimbursement cuts, with respect to doctors and hospitals. However, in order to ameliorate the HI fund depletion earlier, the cuts must exceed what Congress is currently allowing. The doc fix does not enable the funding issues to be resolved in an efficient manner. By applying lower reimbursements, this will entail that future generations, during their retirement, should expect pay for supplementary health coverage from private insurers. Many doctors will likely leave the Medicare program, leaving fewer options for future Medicare patients. We can certainly expect higher taxation on payroll for Medicare, much like the projection in Figure 2. The taxes will be raised gradually, but the increase is inevitable, especially if the HI trust fund is to be kept solvent for a longer period of time. Finally, the

Medicare age will likely be increased, with the change to be implemented gradually. The eligibility age will be raised to match that of Social Security, so that the benefits at retirement age will be consistent. Therefore, employers and private insurers should expect to provide coverage for a longer period of time or later age.

Although we should expect these three major changes to take place, we are still unsure as to whether they will solve the Medicare funding issue, or if they serve to only extend the life of the Medicare program by a finite number of years. The ultimate solution for future generations is to ensure that they have enough savings to rely upon by the time they retire. With the way Medicare (and Social Security) funds are projected to be, it is imperative that we do not rely on Medicare or Social Security to sustain us. It is imperative to understand early on that Medicare and Social Security benefits are to serve as a financial floor, not as the sole source of retirement income.

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